

# PROJECT DESCRIPTION

## GENERAL

THIS PROJECT INVOLVES THE CONSTRUCTION OF A NEW INTERCONNECTED HAZARD IDENTIFICATION BEACON IN THE WESTBOUND DIRECTION ON MD 140 FOR THE INTERSECTION OF MD 140 AND GORES MILL ROAD IN BALTIMORE COUNTY. MD 140 IS ASSUMED TO RUN IN AN EAST - WEST DIRECTION.

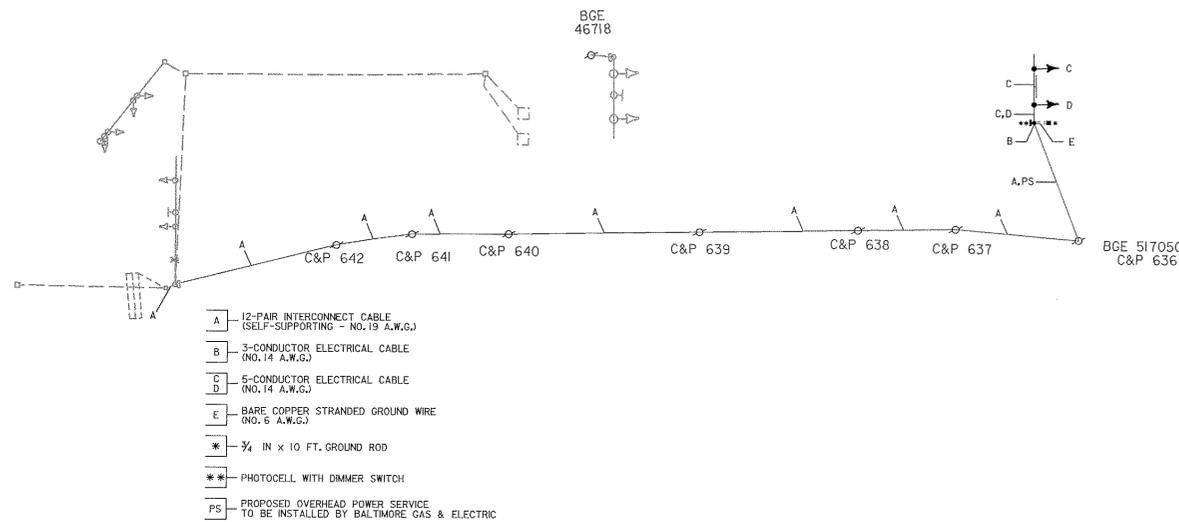
## INTERSECTION OPERATION

THE EXISTING INTERSECTION WILL OPERATE IN A NEMA THREE-PHASE, FULL-TRAFFIC-ACTUATED MODE. NO LEFT TURNS ARE PERMITTED ALONG MD 140.

## CONTROLLER REQUIREMENTS

THE EXISTING MAIN CONTROLLER, LOOP DETECTOR AMPLIFIERS, AND ASSOCIATED HARNESSSES WILL REMAIN AT THE INTERSECTION OF MD 140 AND GORES MILL ROAD. INSTALL A TWO-CIRCUIT FLASHER, ASSOCIATED HARNESSSES AND A RELAY PACKAGE IN A TYPE G CABINET AT THE PROPOSED HIB LOCATION.

## WIRING LEGEND



## PHASE CHART

	1	2	3	4	5	6	7	8	
	○	○	⊙	⊙	⊙	⊙	⊙	⊙	
PHASE 2 + 6	OUT	OUT	G	G	G	G	R	R	←
PHASE 2 + 6 PRE-CHANGE	FL/Y	FL/Y	G	G	G	G	R	R	→
PHASE 2 + 6 CHANGE	FL/Y	FL/Y	Y	Y	Y	Y	R	R	↔
PHASE 4	FL/Y	FL/Y	R	R	R	R	G	G	↑
PHASE 4 CHANGE	FL/Y	FL/Y	R	R	R	R	Y	Y	↓
FLASHING OPERATION	OUT	OUT	FL/Y	FL/Y	FL/Y	FL/Y	FL/R	FL/R	↕

## EQUIPMENT LIST 'A'

EQUIPMENT TO BE FURNISHED BY THE SHA.

ITEM NUMBER	QUANTITY	DESCRIPTION
3 9004 9504	66 SF	SHEET ALUMINUM SIGN CONSISTING OF THE FOLLOWING - W3-3(2) SIGN (120 IN X 60 IN) MAST ARM MOUNT - W3-3 SIGN (48 IN X 48 IN) POLE MOUNT
9068	1 EA	TWO-CIRCUIT FLASHER
9076	1 EA	CABINET *G* TYPE POLE MT
3 9000	1 EA	FURNISH HIB AND INSTALL RELAY PACKAGE FOR NEW HIB
9000	1 EA	FURNISH HIB RELAY PACKAGE (** TO BE INSTALLED BY SHA AT GORES MILL ROAD** )
3 9032	1 EA	SINGLE MAST ARM POLE 27 FT WITH ANCHOR BOLTS AND 70 FT MAST ARM

## EQUIPMENT LIST 'B'

EQUIPMENT TO BE FURNISHED AND INSTALLED BY THE CONTRACTOR.

ITEM NUMBER	QUANTITY	DESCRIPTION
NEGOTIABLE	2 CY	TEST PIT EXCAVATION
NEGOTIABLE	5 CY	FURNISH AND INSTALL CONCRETE FOR SIGNAL POLE FOUNDATION
3 8055	3 EA	FURNISH AND INSTALL GROUND ROD - 3/4 IN. DIAMETER X 10 FT. LENGTH
NEGOTIABLE	135 LF	FURNISH AND INSTALL NO. 6 A.W.G. STRANDED BARE COPPER GROUND WIRE
NEGOTIABLE	25 LF	FURNISH AND INSTALL 2 IN. SCHEDULE 80 RIGID PVC ELECTRICAL CONDUIT - TRENCHED
NEGOTIABLE	2,000 LF	FURNISH AND INSTALL 12-PAIR COMMUNICATION CABLE (NO.19 A.W.G.)- SELF-SUPPORTING (OVERHEAD)
NEGOTIABLE	100 LF	FURNISH AND INSTALL ELECTRICAL CABLE - 5 CONDUCTOR (NO.14 A.W.G.)
NEGOTIABLE	50 LF	FURNISH AND INSTALL ELECTRICAL CABLE - 3 CONDUCTOR (NO.14 A.W.G.)
NEGOTIABLE	1 EA	FURNISH AND INSTALL ELECTRICAL HANDHOLE
NEGOTIABLE	1 EA	FURNISH AND INSTALL CONTROL AND DISTRIBUTION OF EQUIPMENT (120/240V, 1PH, 3W)
3 NEGOTIABLE	1 EA	FURNISH AND INSTALL 27 FT. STEEL POLE (70 FT. SERIES) WITH ANCHOR BOLTS AND 70 FT MAST ARM
3 NEGOTIABLE	1 EA	FURNISH AND INSTALL 70 FT. MAST ARM
NEGOTIABLE	1 EA	CUT, CLEAN AND CAP MAST ARM
3 NEGOTIABLE	1 EA	INSTALL TYPE G CABINET, TWO-CIRCUIT-FLASHER AND HIB RELAY PACKAGE
8025	66 SF	INSTALL SHEET ALUMINUM SIGN (MAST ARM MOUNT)
NEGOTIABLE	LUMP SUM	REMOVE AND DISPOSE OF EXISTING TRAFFIC SIGNAL EQUIPMENT
NEGOTIABLE	2 EA	FURNISH AND INSTALL 12 IN. I-WAY, 1 SECTION SIGNAL HEAD (ALUMINUM) MAST ARM MOUNT
NEGOTIABLE	16 EA	FURNISH AND INSTALL TRAFFIC BARRIER W-BEAM POST NORMAL 6 FOOT LENGTH
NEGOTIABLE	1 EA	FURNISH AND INSTALL PHOTO CELL WITH DIMMER SWITCH
3 NEGOTIABLE	1 EA	

REVISIONS	APPROVALS
3 REDLINE REVISION #3 5/07/02 STV/BFD	TEAM LEADER, TRAFFIC ENGINEERING DESIGN DIVISION
	ASST. CHIEF TRAFFIC ENGINEERING DESIGN DIVISION
	CHIEF, TRAFFIC ENGINEERING DESIGN DIVISION
	DIRECTOR, TRAFFIC & SAFETY